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EXAMINER

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ART UNIT	PAPER NUMBER
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1762

DATE MAILED:

07/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>09/424,660</b>	Applicant(s) <b>Becker et al</b>
	Examiner <b>Katherine A. Bareford</b>	Group Art Unit <b>1762</b>

Responsive to communication(s) filed on Jan. 27, 2000

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-12 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-12 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 7

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
  
2. The disclosure is objected to because of the following informalities: (1) headings, such as BACKGROUND OF THE INVENTION, BRIEF DESCRIPTION OF THE DRAWINGS, etc. should be provided where appropriate. (2) at page 2, third paragraph, the references to the claims should be removed.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 1, "thin" is vague and indefinite as to the thickness.

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Claim 1, line 1, "plane" is confusing as to what is required. Does applicant mean flat?, planar?, etc.

Claim 1, lines 2-3, "in particular for forming bond layers between partial substrates (S1, S2) or coatings of lacquer on substrates thereby" the phrase "in particular" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 1, line 4, "the coating material" lacks antecedent basis and is confusing as worded, since there is no connection to the "viscous fluid" described earlier in the claim.

Claim 1, line 4, "dosing arm" should be connected structurally to the dosing pump.

Claim 1, line 6, "the layer thickness" lacks antecedent basis.

Claim 1, line 7, "the controlled variables" lacks antecedent basis and is also confusing as to what the controlled variables are supposed to be.

Claim 1, lines 8-9, "the influence of varying variables (disturbance variables)" is confusing as worded as to what is required and how the parentheses is intended to be used.

Claim 1, this claim does not have required positive recitation of method features of coating, since the claim does not actually perform any method steps such as coating, rotating, etc.

Claim 2, lines 1-2, "the disturbance variables" lacks antecedent basis as the phrase is in parentheses in the claim above.

Claim 2, line 2, "the temperature" lacks antecedent basis.

Claim 2, line 3, "the temperature" lacks antecedent basis.

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Claim 3, lines 1-2, it is unclear what is required to be tested in this claim.

Claim 4, lines 1-2, this reference as to the formation of bond layers is confusing, since there is no requirement in claim 1 as to this formation. Furthermore, this connecting means is not required to do any connecting.

Claim 4, lines 4-5, "further controlled variables" is confusing as to what is required.

Claim 5, lines 2-3, this claim should be clarified as to what is required.

Claim 6, line 2, "the connecting means" lacks antecedent basis since this claim depends from claim 5, not claim 4.

Claim 6, line 3, "the rotary centrifugal drive" lacks antecedent basis since this claim depends from claim 5, not claim 4.

Claim 7, line 3, "the desired value" lacks antecedent basis.

Claim 8, line 2, it is unclear how the coating thickness would be considered or determined.

Claim 9, line 1, "the sensor" lacks antecedent basis.

Claim 10 provides for the use of claim 1, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. Claim 10 also is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process

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claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim 11 provides for the use of claim 10, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. Claim 11 also is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim 11, lines 1-2, "the bond layer thickness" lacks antecedent basis.

Claim 12, line 1, this claim should be made independent, so that an apparatus claim is not depending from a method claim.

Claim 12, the dosing pump, arm, etc. should also be provided as part of the claim to clarify what is required.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwagi et al (US 5938891) in view of Japan 3-178123 (hereinafter '123).

Kashiwagi teaches a method and apparatus for disk bonding. Column 1, lines 1-10. Bond layers of adhesive can be applied to the surface of a disk using a dosing pump and dosing arm. Column 3, lines 50-68 and column 5, lines 10-30. The dosing arm is movable over the disk substrate. Column 5, lines 15-20. A rotary drive is provided for rotating the substrate. Column 6, lines 5-30. Kashiwagi further teaches that it is known to rotate the disk before and after a top, upper side, disk is applied to the first, lower side disk. Column 1, lines 5-25. The material to be applied can have higher or lower viscosity, which affects the treatment of the disk. Column 8, line 45 through column 9, line 15.

Claim 4: a connecting means for connecting the upper and lower substrates is provided. Column 5, line 30 through column 6, line 20 and column 3, lines 50-68. A rotary centrifugal drive for spinning off excess bonding material is also provided. Column 6, lines 20-30.

Claim 5: the system is controlled by a signal providing control unit. Column 10, lines 10-45, for example.

Claim 10: the disk system can be used to make optical storage disks, such as DVD. Column 9, lines 15-20.

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Kashiwagi teaches all the features of these claims except (1) measuring and testing means for variables to control thickness (claims 1-3), (2) the computer controlling system (claims 5-6) and (3) the deviation (claim 11).

However, '123 teaches that when applying a film onto a spinning substrate, it is desirable to measure such features as the temperature of the substrate and coating material and to adjust the rotary drive for deviations of these measurements from the desired measurements. See the abstract. A controller adjusts the rotary drive based on the measurements and deviations. See the abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kashiwagi to provide measurement of variables such as temperature, etc. when applying the coating as suggested by '123 with an expectation of better thickness control, because Kashiwagi teaches applying coating to a substrate to be spun and '123 teaches better thickness control for coatings applied to a substrate to be spun. It further would have been obvious to use conventionally known computer systems to perform the controlling with an expectation of similar results, because such is a conventional method for controlling such operations. It further would have been obvious to select desired tolerances/deviations when programming such a computer, so that when to make changes would be clear.

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7. Claims 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashiwagi in view of '123 as applied to claims 1-6 and 10-11 above, and further in view of Japan 7-29809 (hereinafter '809).

Kashiwagi in view of '123 teaches all the features of these claims except the optical sensor for noncontact measurement of coating thickness during the operation.

However, '809 teaches that it is known to use a noncontact optical sensor for measuring film thickness during coating to provide a desired film thickness and allow for automatic adjustment of the operation of the system. See the abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kashiwagi in view of '123 to provide noncontact coating thickness measurement as suggested by '809 with an expectation of better thickness control, because Kashiwagi in view '123 teaches applying coating to a substrate and controlling the thickness and measurement of the coating thickness during the process as suggested by '809 would provide for better overall control of this process.

8. Any inquiry concerning this communication should be directed to Katherine A. Bareford at telephone number (703) 308-0078.



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